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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
JONES, PRENELL P	
ART UNIT	**PAPER NUMBER**
2667	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/814,407	HANNU ET AL.	
	Examiner	Art Unit	
	Prenell P Jones	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1/24/03, 11/18/02, 2/25/02
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claims 1, 2 and 5 of copending Application No. 09/814,434. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: Although the conflicting claims are not identical, they are not patentably distinct from each other because the combined limitations of claims 1, 2 and 5 of US Pat Application 09/814,434 are ascertained in claim 1 of the present application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr in view of Le (US Pat 6,300,887).

Regarding claim 1, Le (US Pat 6,300,887) discloses (Abstract, Figure 2, col. 3, line 56 thru col. 5, line 61) handoff procedures for header (packet/message portion) compression wherein the architecture includes communicating packet data in a mobile environment that includes communicating packets (messages) between a source and destination (mobile terminals), wherein there is a compressor/decompressor (network entity/ANI_AD) at the source and at the destination, each network entity includes a compressor context information and decompressor context information, packets are routed via downlink/uplink (channel pairs), packets are transmitted (compressor) on the downlink and received (decompressor) on the uplink, stored compressor context information is used for generating packets, packets compressed at first entity/compressor, at second entity decompressor decompresses received packet, thereby reproducing received packet, (col. 11, line 3 thru col. 15, line 30) packets having headers of first

and second order, packets are compressed on downlink channel and decompressed on the uplink channel, identifiers are associated with the packets which is a sequence number and identification number of packet which last updated the decompression context information and updated context information is stored by second entity, (col. 7, line 26 thru col. 10, line 16) method of transferring context information of headers transmitted in the downlink and transmitting packets from the compressor wherein context information is updated and sequence numbers are associated with packets as they are updated, thereby representing the packets with sequence numbers identifying the packets, and (col. 2, line 43-59) packet identification is incremented with updates and as packets are transmitted with packet sequence number, the packet sequence number is associated with session sequence. Le further discloses (col. 4, line 1-65) second entity receiving at least one packet at a time with its identifying sequence number and associated session as mention above, and decompressing at second entity with stored context information, and snapshots of context information of first entity and second entity are transferred between entities to update context information associated with packet data. Le is silent on using dictionaries. In analogous art, Carr (Abstract, Figures 1 & 6, col. 3, line 14-55) discloses a packet based data compression method wherein packet/message data is communicated between a transmitting device and a receiving device whereby the architecture includes the compression and expansion/decoding of packet data/messages, compression dictionary (context information), dictionary tables are created for all packet headers for coding, separate dictionary tables are created for each user-data portion for enabling better compression, (Figure 4 & 5), col. 4, line 49 thru col. 5, line 52, col. 6, line 7-25, line 33-63) plurality of compression tables are employed, TCP header portions as well as higher level packet formats of packets/messages are received, employment of Ethernet packets/messages which includes an internet protocol/IP header fields, and decoder/decompressor is required at

the receiving end to proceed through the same process as performed at the transmission end which includes the updating of dictionaries/context information associated with reformatting packet, dictionaries are at both ends (transmit and receive) of the communicating system, (col. 9, line 1-63) producing packets as associated the compression and decompression at first/second entities, and (col. 7, line 13 thru 10, line 30), and also associated with the compression method, messages in sequence are transmitted, messages are associated with conversation (session), header information and other packet information is match with context information as associated in dictionary tables are updated. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement dictionary (context tables) as taught by Carr with the teachings of Le for the purpose of coding packet data in a organized fashion.

Regarding claims 2-5, as indicated above, Le (US Pat 6,300,887) discloses (Abstract, Figure 2, col. 3, line 56 thru col. 5, line 61) handoff procedures for header (packet/message portion) compression wherein the architecture includes communicating packet data in a mobile environment that includes communicating packets (messages) between a source and destination (mobile terminals), wherein there is a compressor/decompressor (network entity/ANI_AD) at the source and at the destination, each network entity includes a compressor context information and decompressor context information, packets are routed via downlink/uplink (channel pairs), packets are transmitted (compressor) on the downlink and received (decompressor) on the uplink, stored compressor context information is used for generating packets, packets compressed at first entity/compressor, at second entity decompressor decompresses received packet, thereby reproducing received packet, (col. 9, line 1-63) producing packets as associated the compression and decompression at first/second

entities, (col. 11, line 3 thru col. 15, line 30) packets having headers of first and second order, packets are compressed on downlink channel and decompressed on the uplink channel, identifiers are associated with the packets which is a sequence number and identification number of packet which last updated the decompression context information and updated context information is stored by second entity, (col. 7, line 26 thru col. 10, line 16) method of transferring context information of headers transmitted in the downlink and transmitting packets from the compressor wherein context information is updated and sequence numbers are associated with packets as they are updated, thereby representing the packets with sequence numbers identifying the packets, and (col. 2, line 43-59) packet identification is incremented with updates and as packets are transmitted with packet sequence number, the packet sequence number is associated with session sequence. Le further discloses (col. 4, line 1-65) second entity receiving at least one packet at a time with its identifying sequence number and associated session as mention above, and decompressing at second entity with stored context information, and snapshots of context information of first entity and second entity are transferred between entities to update context information associated with packet data. Le further discloses (col. 4, line 39-65) header packet transmitted to second entity, wherein packet received by mobile decompressor is compressed by the second entity, (col. 6, line 18 thru col. 8, line 61) second entity context information is used to create compressed packet whereby created packet is transmitted to first entity, and first entity context information is updated.

Regarding claims 7-10, as indicated above, Le (US Pat 6,300,887) discloses (Abstract, Figure 2, col. 3, line 56 thru col. 5, line 61) handoff procedures for header (packet/message portion) compression wherein the architecture includes communicating packet data in a mobile environment that includes communicating packets (messages) between a source and

destination (mobile terminals), wherein there is a compressor/decompressor (network entity/ANI_AD) at the source and at the destination, each network entity includes a compressor context information and decompressor context information, packets are routed via downlink/uplink (channel pairs), packets are transmitted (compressor) on the downlink and received (decompressor) on the uplink, stored compressor context information is used for generating packets, packets compressed at first entity/compressor, at second entity decompressor decompresses received packet, thereby reproducing received packet, (col. 9, line 1-63) producing packets as associated the compression and decompression at first/second entities, (col. 11, line 3 thru col. 15, line 30) packets having headers of first and second order, packets are compressed on downlink channel and decompressed on the uplink channel, identifiers are associated with the packets which is a sequence number and identification number of packet which last updated the decompression context information and updated context information is stored by second entity, (col. 7, line 26 thru col. 10, line 16) method of transferring context information of headers transmitted in the downlink and transmitting packets from the compressor wherein context information is updated and sequence numbers are associated with packets as they are updated, thereby representing the packets with sequence numbers identifying the packets, and (col. 2, line 43-59) packet identification is incremented with updates and as packets are transmitted with packet sequence number, the packet sequence number is associated with session sequence. Le further discloses (col. 4, line 1-65) second entity receiving at least one packet at a time with its identifying sequence number and associated session as mention above, and decompressing at second entity with stored context information, and snapshots of context information of first entity and second entity are transferred between entities to update context information associated with packet data. Le further discloses (col. 4, line 39-65) header packet transmitted to second entity, wherein packet received by

mobile decompressor is compressed by the second entity, (col. 6, line 18 thru col. 8, line 61, Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques, second entity context information is used to create compressed packet whereby created packet is transmitted to first entity, and first entity context information is updated. Le further discloses (col. 18, line 9-48) each ANI_AD acts as a transmitter/receiver and compressor/decompressor and (Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques.

Regarding claims 11-16, as indicated above, Le (US Pat 6,300,887) discloses (Abstract, Figure 2, col. 3, line 56 thru col. 5, line 61) handoff procedures for header (packet/message portion) compression wherein the architecture includes communicating packet data in a mobile environment that includes communicating packets (messages) between a source and destination (mobile terminals), wherein there is a compressor/decompressor (network entity/ANI_AD) at the source and at the destination, each network entity includes a compressor context information and decompressor context information, packets are routed via downlink/uplink (channel pairs), packets are transmitted (compressor) on the downlink and received (decompressor) on the uplink, stored compressor context information is used for generating packets, packets compressed at first entity/compressor, at second entity decompressor decompresses received packet, thereby reproducing received packet, (col. 9, line 1-63) producing packets as associated the compression and decompression at first/second entities, (col. 11, line 3 thru col. 15, line 30) packets having headers of first and second order, packets are compressed on downlink channel and decompressed on the uplink channel, identifiers are associated with the packets which is a sequence number and identification

number of packet which last updated the decompression context information and updated context information is stored by second entity, (col. 7, line 26 thru col. 10, line 16) method of transferring context information of headers transmitted in the downlink and transmitting packets from the compressor wherein context information is updated and sequence numbers are associated with packets as they are updated, thereby representing the packets with sequence numbers identifying the packets, and (col. 2, line 43-59) packet identification is incremented with updates and as packets are transmitted with packet sequence number, the packet sequence number is associated with session sequence. Le further discloses (col. 4, line 1-65) second entity receiving at least one packet at a time with its identifying sequence number and associated session as mention above, and decompressing at second entity with stored context information, and snapshots of context information of first entity and second entity are transferred between entities to update context information associated with packet data. Le further discloses (col. 4, line 39-65) header packet transmitted to second entity, wherein packet received by mobile decompressor is compressed by the second entity, (col. 6, line 18 thru col. 8, line 61, Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques, second entity context information is used to create compressed packet whereby created packet is transmitted to first entity, and first entity context information is updated. Le further discloses (col. 18, line 9-48) each ANI_AD acts as a transmitter/receiver and compressor/decompressor and (Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques.

Regarding claims 17-19, as indicated above, Le (US Pat 6,300,887) discloses (Abstract, Figure 2, col. 3, line 56 thru col. 5, line 61) handoff procedures for header (packet/message portion)

compression wherein the architecture includes communicating packet data in a mobile environment that includes communicating packets (messages) between a source and destination (mobile terminals), wherein there is a compressor/decompressor (network entity/ANI_AD) at the source and at the destination, each network entity includes a compressor context information and decompressor context information, packets are routed via downlink/uplink (channel pairs), packets are transmitted (compressor) on the downlink and received (decompressor) on the uplink, stored compressor context information is used for generating packets, packets compressed at first entity/compressor, at second entity decompressor decompresses received packet, thereby reproducing received packet, (col. 9, line 1-63) producing packets as associated the compression and decompression at first/second entities, (col. 11, line 3 thru col. 15, line 30) packets having headers of first and second order, packets are compressed on downlink channel and decompressed on the uplink channel, identifiers are associated with the packets which is a sequence number and identification number of packet which last updated the decompression context information and updated context information is stored by second entity, (col. 7, line 26 thru col. 10, line 16) method of transferring context information of headers transmitted in the downlink and transmitting packets from the compressor wherein context information is updated and sequence numbers are associated with packets as they are updated, thereby representing the packets with sequence numbers identifying the packets, and (col. 2, line 43-59) packet identification is incremented with updates and as packets are transmitted with packet sequence number, the packet sequence number is associated with session sequence. Le further discloses (col. 4, line 1-65) second entity receiving at least one packet at a time with its identifying sequence number and associated session as mention above, and decompressing at second entity with stored context information, and snapshots of context information of first entity and second entity are transferred

between entities to update context information associated with packet data. Le further discloses (col. 4, line 39-65) header packet transmitted to second entity, wherein packet received by mobile decompressor is compressed by the second entity, (col. 6, line 18 thru col. 8, line 61, Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques, second entity context information is used to create compressed packet whereby created packet is transmitted to first entity, and first entity context information is updated. Le further discloses (col. 18, line 9-48) each ANI_AD acts as a transmitter/receiver and compressor/decompressor and (Figures 3 & 4, col. 19, line 5-63) algorithms that are associated with processors to initiate compression and decompression techniques. In addition, the (Figure 1, col. 4, line 5 thru col. 9, line 30) architecture that is disclosed by Le includes a first compressor/decompressor at a first entity with associated context information in communication with a second compressor/decompressor with associated context information wherein context information at entity locations are updated constantly with respect to communication messages.

Allowable Subject Matter

3. Claims 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Although the prior art discloses compression/decompression at a transmitting end and receiving end, whereby both ends utilize dictionaries and context information for coding packet data as associated with a first and second communication entity and associated first and second context information they fail to teach or suggest compressing at a second entity a portion of a second message using a third dictionary, adding portions of second message to

third dictionary, decompressing second message at first entity and using a fourth dictionary to reproduce second message, and adding a portion of second message to a fourth dictionary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

October 31, 2004